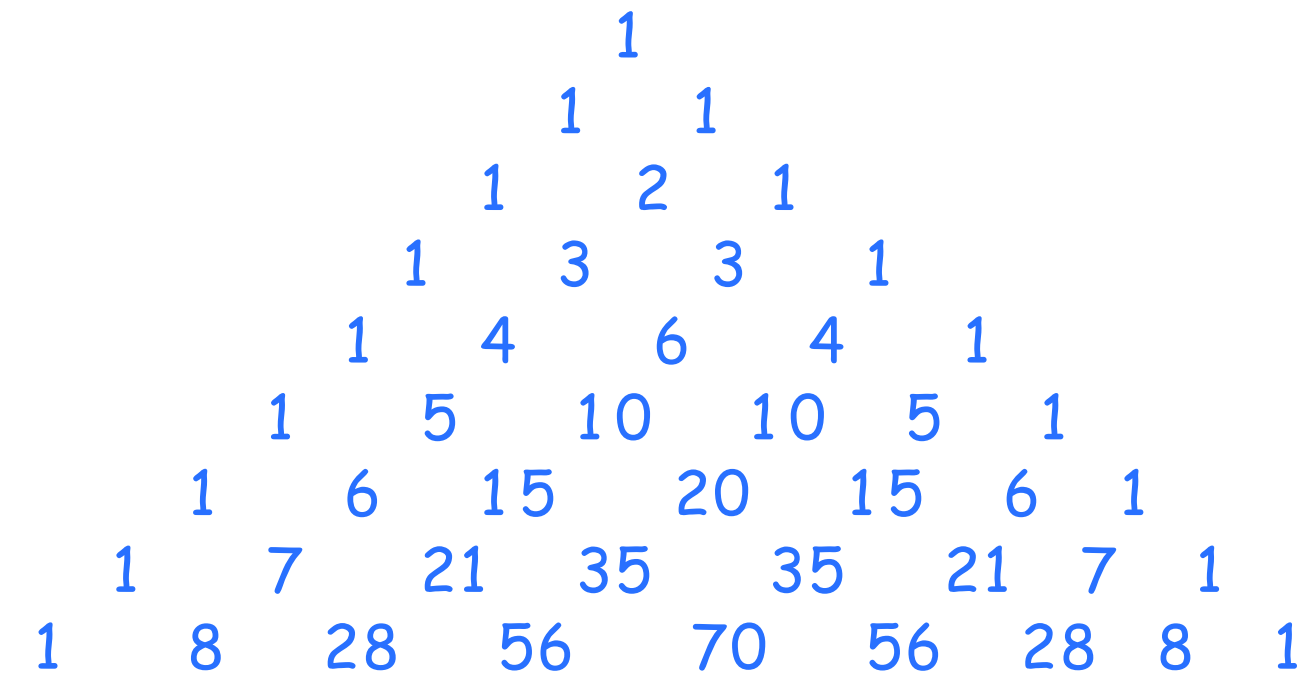
Unit 4
Day 3
Section 3.3
Binomial Expansion
Using Pascal's Triangle

PASCAL'S TRIANGLE



PUT ON SIDE BOARD

$$(x+y)^5 = (x+y)(x+y)(x+y)(x+y)(x+y)$$

$$x^5 + 5x^4y + 10x^3y^2 + 10x^2y^3 + 5xy^4 + y^5$$

$(2x-y)^7$

$(2x)^7 - (2x)^6 y \cdot 7 + (2x)^5 \cdot 21 \cdot y^2 - (2x)^4 \cdot 35 \cdot y^3$

$+ (2x)^3 \cdot 35 \cdot y^4 - (2x)^2 \cdot 21 y^5 + (2x) \cdot 7 \cdot y^6 - y^7$

$128x^7 - 448x^6 y + 672x^5 y^2 - 560x^4 y^3$

$+ 280x^3 y^4 - 84x^2 y^5 + 14xy^6 - y^7$

$(3a+2b)^4$

$(3a)^4 + 4(3a)^3(2b) + 6(3a)^2(2b)^2 + 4(3a)(2b)^3 + (2b)^4$

$81a^4 + 216a^3b + 216a^2b^2 + 96ab^3 + 16b^4$

HOMEWORK

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